

Amendments to Claims:

Claims 1-14. (Cancelled)

Claim 15. (new) A heat exchanger comprising:

a substrate that comprises a bottom side and a top side;

a unit for generating a directed fluid stream with a flow direction that is tangential to the bottom side and to the top side of substrate;

webs projecting from the top side of substrate and perpendicular to the flow direction, lying one after the other in the flow direction, wherein a height of the webs is less than a spacing of adjacent webs in the flow direction; and

a plurality of regularly arranged channels extending through the substrate.

Claim 16. (new) The heat exchanger of claim 15 wherein the webs extend continuously over a width of the substrate.

Claim 17. (new) The heat exchanger of claim 15 wherein the webs are arranged directly in front of the channels in the flow direction.

Claim 18. (new) The heat exchanger of claim 16 wherein the webs are arranged directly in front of the channels in the flow direction.

Claim 19. (new) The heat exchanger of claim 15 wherein the channels have a rectangular shape with adjacent sides of unequal

length with a longer side oriented parallel to the flow direction.

Claim 20. (new) The heat exchanger of claim 17 wherein the channels have a rectangular shape with adjacent sides of unequal length with a longer side oriented parallel to the flow direction.

Claim 21. (new) The heat exchanger of claim 15 wherein the substrate is placed via spacers on an object and a height of the spacers is greater than the height of the webs.

Claim 22. (new) The heat exchanger of claim 21 wherein the height of the spacers is less than a length of the channels in the flow direction.

Claim 23. (new) The heat exchanger of claim 21 wherein the spacers project between the channels from the bottom side of the substrate and extending over the length of substrate to form longitudinal channels.

Claim 24. (new) The heat exchanger of claim 22 wherein the spacers project between the channels from the bottom side of the substrate and extend over the length of substrate to form longitudinal channels.

Claim 25. (new) The heat exchanger of claim 21 wherein the spacers consist of thermally conductive material.

Claim 26. (new) The heat exchanger of claim 22 wherein the spacers consist of thermally conductive material.

Claim 27. (new) The heat exchanger of claim 15 wherein the substrate consists of thermally conductive material.

Claim 28. (new) The heat exchanger of claim 15 wherein the substrate consists of metal.

Claim 29. (new) The heat exchanger of claim 15 wherein the substrate consists of a material which is coated with thermally conductive material.

Claim 30. (new) The heat exchanger of claim 15 further comprising a guide plate arranged at an inflow side of the substrate.

Claim 31. (new) The heat exchanger of claim 15 wherein a cover plate is arranged a distance away from the top side of substrate, wherein a spacing of the cover plate from the top side of the substrate is at least twice the height of the webs.

Claim 32. (new) The heat exchanger of claim 32 wherein a side of the cover plate facing the top side of the substrate comprises cover plate webs that correspond to the webs on the top side of the substrate, wherein the cover plate webs are obstacles to flow.

Claim 33. (new) The heat exchanger of claim 15 wherein several heat exchangers are modularly arranged in an arrangement

selected from the group of arrangements consisting of side-by-side, one above the other, and one behind the other.

Claim 34. (new) The heat exchanger of claim 15 wherein guide plates are arranged such that a fluid stream arriving perpendicular to the direction of flow is deflected.